

IDAHO DEPARTMENT OF FISH & GAME

Jerry M. Conley, Director

SAWTOOTH SALMON TRAP

Annual Report



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TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	1
OBJECTIVES	2
INTRODUCTION	2
SAWTOOTH SALMON TRAP	3
WEIR COUNT	3
HOLDING POND COUNT	3
HOLDING POND MORTALITY	3
SPAWNING REPORT	3
SALMON RUN HISTORY	3
Sawtooth Spawning Records, 11 August-8 September	4
TAG RETURNS	5
CARCASS DISPOSITION	5
ACKNOWLEDGEMENTS	5
SALMON CARCASS LENGTH-FREQUENCY	6

ABSTRACT

A portable chinook salmon trap was built by the Engineering crew from the Salmon Shop and installed at the Decker Flat salmon rearing pond site in June of 1981.

Eight-hundred-twenty-nine salmon were counted through the trap between 25 June and 9 September 1981.

A portion of the run passed through the site before the trap was installed.

About 200 females and 140 males were retained in a holding pond for spawning purposes.

Eggs were taken from 160 females, for a total of 647,555 green eggs. The average number of eggs per female was 4,047.

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OBJECTIVES

The objectives-of the Sawtooth salmon trap are to:

1. Collect approximately 50% of the spring chinook salmon run until 200 females and about 100 males have been retained in the holding pond.
2. Spawn the salmon as they ripen and ship the green eggs to McCall Salmon Hatchery.
3. Provide a release point for salmon smolts from McCall Hatchery that will return two to three years later for egg-taking purposes.
4. The returning salmon in 1985 will benefit the Sawtooth Salmon Hatchery that will be constructed in 1983 and 1984.

INTRODUCTION

A large spring chinook salmon hatchery will be constructed during 1983 and 1984 at the site of the old Decker Flat salmon rearing pond area. The capacity will be 2.2 million smolts a year, to be released into the upper Salmon River and the East Fork of the Salmon River. The hatchery is being funded by the Army Corps of Engineers for mitigation for dams built on the lower Snake River.

The hatchery will also collect steelhead eggs to supply two hatcheries in the Hagerman area. The steelhead smolts will be planted in the upper Salmon River to establish a steelhead run for sport fishing and egg-taking purposes.

The first planting of steelhead smolts was done in the spring of 1981 from the Hagerman National Hatchery. These eggs were taken from the stock at Idaho Power Company's Pahsimeroi Hatchery. These smolts will be planted each spring and the number will be increased when the new hatchery at Crystal Springs has been constructed.

The first spring chinook salmon smolts will be planted in the spring of 1983, and will return in 1985 and 1986. The salmon trapping we did this summer was to establish an egg-bank for this program.

SAWTOOTH SALMON TRAP

A temporary trap was installed at Decker Flat in Stanley Basin during the summer of 1981. The portable trap was constructed by the Engineering crew at the Salmon Shop. The trap was in full operation by 25 June. Seven salmon were received the first day, and the number increased until 5 July, when a total of 67 came into the trap. The numbers declined after that period, and the trap was shut down on 9 September.

WEIR COUNT

Eight-hundred-twenty-nine salmon were counted, which consisted of 449 females, 357 males, and 23 jacks. It was felt that most of the jacks slipped through the picket bars and escaped upstream.

HOLDING POND COUNT

Fifty-percent of the females and 25% of the males were retained in the holding pond until about 200 females and 100 males were on hand. The balance of the fish were released to spawn naturally upstream.

HOLDING POND MORTALITY

The mortality **in** the holding pond consisted of 16 males and 34 females. This amounts to a 13% loss on salmon held in the holding pond.

SPAWNING REPORT

At start of spawning on 11 August, 183 females and 139 males were on hand. One-hundred-sixty females were spawned between 11 August and 8 September. The remainder of females and males were released to spawn naturally. A total of 647,555 eggs were taken and shipped to McCall Hatchery to be reared to smolt size and returned in spring of 1983.

SALMON RUN HISTORY

In 1979, 914,000 chinook smolts were released at Decker Flat. These were from eggs taken at Rapid River Hatchery in 1977 and shipped to Mullan Hatchery for eye-up and hatching. They were shipped to Mackay Hatchery in June of 1978 and raised to smolt size and released at Decker Flat in April of 1979. Approximately 50% of the run to the Sawtooth Trap was from hatchery-reared smolt releases.

Sawtooth spawning records, 11 August-8 September.

Date	Ounces	No./oz.	Number	Females
Aug. 11	144	87	12,528	3
Aug. 14	276	90	24,840	6
Aug. 17	224	72	16,128	3
Aug. 20	138	84	11,592	2
Aug. 24	719	76.8	55,219	13
Aug. 27	765	98.6	75,429	18
Aug. 31	1,846	91	167,986	39
Sept. 4	1,416	100.1	141,742	38
Sept. 8	1,510	94.1	142,091	38
Totals	7,038	92 (avg)	647,555	160

TAG RETURNS

One-hundred-twenty-two-thousand of the 1979 smolt released at Decker Flat were marked with an adipose fin clip and a coded-wire tag was inserted into their snouts. Fifty-nine snouts were collected from the returning adults and sent to Lewiston Laboratory for analysis. About 13% of the smolts were marked when released. We can say that at least 500 fish returned from this smolt release, and probably the figure will be closer to 800-900 fish returning. One estimate is that we only trapped 50% of the run, based on redd counts in the Salmon River above the weir at the holding pond.

CARCASS DISPOSITION

The salmon carcasses were given to the general public and two Indian reservations. Fort Hall and Duck Valley Indian reservations received salmon carcasses for their senior citizen's programs. The general public consisted of local residents and tourists passing through the area.

ACKNOWLEDGEMENTS

Bob Rose-Temporary laborer assigned to stay at trap and take care of daily work.

Bob Moore-Project Leader.

Jack Siple-Salmon spawning.

Chip Corsi-Salmon spawning.

Considerable assistance was received from Sawtooth NRA and the Engineering crew from Salmon Shop.

SALMON CARCASS LENGTH-FREQUENCY

Length	Male	Female	Ad-clip male	Ad-clip female
22 in	-	-	-	-
23 in	1	-	-	-
24 I n	-	1	-	1
25 in	-	3	-	1
26 in	1	3	-	1
27 in	1	23	-	5
28 in	7	33	3	9
29 in	9	34	4	8
30 in	10	15	4	-
31 in	8	2	3	-
32 in	3	0	-	-
33 in	1	3	-	-
34 in	2	9	-	-
35 in	0	17	-	-
36 in	1	10	-	-
37 in	5	5	1	-
38 in	2	2	-	-
39 in	1	0	-	-
40 in	2	0	-	-
Totals	54	160	15	25